Responses to Comments
Received on Proposed NPDES General Permits
LAG830000, TXG830000, OKG830000 and NMG830000

Comment No. 1

The Louisiana Department of Environmental Quality (LDEQ) stated that they calculated average influent concentrations from applications in the LWPDS groundwater remediation main files. They found the average influent concentration for BTEX for 96 sites was 51.9 mg/l and the average influent concentration for benzene for 97 sites was 13.2 mg/l. They also calculated average effluent concentrations from groundwater remediation permit DMR's. The DMR's were for 109 treatment units with 1877 data points for BTEX and 1910 data points for benzene. The effluent averages were 129.1 ug/l for BTEX and 34.9 ug/l for benzene. LDEQ requested the Agency either review additional data concerning influent concentrations of BTEX and benzene to ascertain that the basis of this proposed permit is accurate or change the effluent limitations to 250 ug/l Total BTEX and 50 ug/l benzene.

Response No. 1

At EPA's request, LDEQ sent copies of these LWPDS groundwater remediation discharge applications and DMR's to the Region. These application and DMR data were thoroughly reviewed. The data showed a large variation in influent levels from one site to another, with influent BTEX data ranging from 0.054 mg/l to 330 mg/l and influent benzene data ranging from 0.019 mg/l to 107 mg/l. The fact sheet for the proposed permits listed typical influent levels as being 15 mg/l BTEX and 1 mg/l benzene.

We do not agree that the average of all these effluent DMR data for BTEX (129.1 ug/l) and for benzene (34.9 ug/l) are representative of Best Available Technology. Examination of the DMR data shows that over 1500 effluent samples had a benzene level of less than the Minimum Quantification Level (MQL) of 10 ug/l with most of these being Not Detected. (Note that the term Minimum Quantification Level is equivalent to the term Minimum Analytical Level.) There were 146 samples between 10 and 50 ug/l. In addition, 100 of the benzene samples were over 50 ug/l with a number of these being over 1000 ug/l and the highest being 3400 ug/l. For BTEX, over 1600 effluent samples were less than 100 ug/l and 184 were over 100 ug/l. The BTEX effluent values ranged from Not Detected to 17,760 ug/l. An examination of the effluent data for each of these sites showed that the benzene MQL level of 10 ug/l could be achieved by all of the discharge sites

most of the time. Some of the DMR's contained explanations of the high benzene occurrences, stating these high levels were caused by treatment system malfunctions. Examination of effluent BTEX data for each site showed trends similar to those for benzene.

This large body of effluent data, therefore, shows that the contaminated groundwater not only can be treated, but is successfully being treated, to levels below the MQL level of 10 ug/l benzene and to well below 100 ug/l BTEX. The data also show that the high effluent levels found in a small percentage of the effluent samples occurs when the treatment equipment is not functioning properly. BAT effluent limits must, of course, be based on properly operating treatment equipment. The Louisiana data does, however, show that the Fact Sheet's assumption of a typical treatment efficiency of 99.5 % (reducing benzene levels from 1 mg/l to 5 ug/l and BTEX from 15 mg/l to 100 ug/l) was overly conservative. The Louisiana data shows, as does the other data cited in this permit's fact sheet, that the BAT limits of 100 ug/l for BTEX and 5 ug/l (with test results less than 10 ug/l being reported as zero) for benzene are readily achievable. The request to change the BTEX and benzene limits is, therefore, denied.

Comment No. 2

LDEQ requested the term "Daily Average" in the permit be changed to "Monthly Average". They point out that 40 CFR 122.45(d)(1) uses the term "average monthly" in connection with discharge limitations for facilities other than publicly owned treatment works. They also say they are now using the term "Monthly Average" instead of "Daily Average" in all LWPDES permits.

Response No. 2

Part III.F.7 of the permit gives the same definition for both Daily Average and Monthly Average; however, EPA agrees that the term "Monthly Average" is more intuitively descriptive of the definition than "Daily Average". The terminology will, therefore, be changed in Part I of LAG830000 from "Daily Average" to "Monthly Average".

Comment No. 3

LDEQ requested that EPA reword Part I.A.4 of the Permit - Intent to be Covered by a Subsequent Permit - to require a permittee to submit a notification at least 180 days before the general permit expires but no later than the expiration data if the permittee

wishes to continue coverage after the expiration data of the permit. LDEQ subsequently requested deletion of the entire Part I.A.4 of the permit. LDEQ subsequently revised this comment to request deletion of the Part I.A.4 requirement from the Permit LAG830000.

Response No. 3

The Part I.A.4 requirement will be removed from LAG830000 as well as OKG830000, NMG830000 and TXG830000. Part I.A.4 of the proposed permit would require a permittee to notify EPA at least 180 days before the general permit expiration date if they want to be covered by a subsequent general permit when it is reissued. A subsequent general permit can, however, require request for coverage after the effective date of that permit, as the current permits do in Part I.A.2. In addition, an expired NPDES general permit is administratively continued under Section 558(a) of the Administrative Procedures Act until the effective date of a subsequently reissued general permit. The notice required by Part I.A.4 is, therefore, not necessary for coverage to continue under an expired, but administratively continued, general permit.

Comment No. 4

LDEQ commented that although Part II.D.7 (Twenty-four Hour Reporting) requires oral reporting which may endanger health or the environment, Louisiana State regulations require notification of this type of noncompliance within one hour of becoming aware of the circumstances. They requested that a statement be made in the permit reminding permittees that immediate notification may be required by state regulation.

Response No. 4

A statement to that effect will be added to Part II.D.7 which will apply to Louisiana dischargers.

Comment No. 5

Louisiana Mid-Continent Oil and Gas Association (LMOGA) supported the LDEQ request to increase the Total BTEX limits to 250 ug/l and the benzene limits to 50 ug/l, citing the average influent concentration stated by LDEQ in their comment letter (see Comment NO. 1, above). LMOGA also mentioned that EPA refers to the Louisiana water quality standard of 1.1 ug/l for drinking water supplies as a justification for the proposed benzene limits, but few receiving waters for these discharges will be sources of

surface water supplies for drinking water. LMOGA commented that the Louisiana permit, and Texas Mid-continent Oil and Gas Association (TMOGA) made the same comment concerning the Texas permit, should allow a de minimis discharge to be treated for on-site land reuse, stating the Texas regulations contain such a provision.

Response No. 5

For EPA's response on increasing the benzene and Total BTEX limits, see Response No. 1. Concerning the LMOGA comment about the water quality standard of 1.1 ug/l as a basis for the benzene limit, the proposed permit's Fact Sheet states the basis for the 5 ug/l benzene limit is BAT. It also states that since this BAT-based limit for monthly average and daily maximum is as stringent as, or more stringent than, the long term average human health water standards for benzene, compliance with the BAT-based limit will assure compliance with all of the water quality standards for benzene.

The Texas regulation referred to in the LMOGA and TMOGA comments on di minimis discharges is 30 TAC, Subchapter H, Sections 321.131-321.138. In 321.132(b)(2)(A), that regulation states TNRCC registration is not required if petroleum substance contaminated water is land applied on-site with no runoff, if the volume to be land applied is 500 gallons or less during any quarter. The regulation also states that monitoring results do not have to be submitted to TNRCC, but the limits of the Subchapter must be met for this type of discharge. The Clean Water Act requires discharges to Waters of the United States to be authorized by an NPDES permit. If a discharge does not reach a Water of the United States, coverage by an NPDES permit is not required. If a discharge does reach a Water of the United States, the Act has no provision authorizing "di minimis" discharges without an NPDES permit. In addition, 40 CFR 122.44(I)(2) requires monitoring results to be reported at least on an annual basis. There is no provision allowing no reporting of monitoring results for "di minimis" discharges.

Comment No. 6

Both Texas Natural Resources Conservation Commission (TNRCC) and TMOGA noted the limits in the proposed permit for benzene and Total BTEX are more stringent than required by TNRCC. The TNRCC permit limit for benzene is 50 ug/l daily maximum and the TNRCC BTEX limit is 500 ug/l daily maximum. TNRCC requested increasing the limits in the final NPDES to those values.

Response No. 6

As discussed in Response No. 1, above, the information cited in the Fact Sheet for the proposed permits as well as the large body of benzene and BTEX effluent data submitted by LDEQ show the BAT limits of 100 ug/l for BTEX and 5 ug/l (with test results less than 10 ug/l being reported as zero) for benzene are readily achievable. The request is, therefore, denied.

Comment No. 7

TNRCC recommended deletion of daily average limits since they think the daily average and daily maximum limits should not be equivalent for grab samples.

Response No. 7

As discussed in the Fact Sheet, 40 CFR 122.45(d) requires all permit effluent limitations for continuous discharges to have daily maximum and monthly average (daily average) discharge limits for all facilities other than publicly owned treatment works. The discharges covered by these permits must, therefore, have both monthly average and daily maximum limits. The "Model NPDES Permit for Discharges Resulting from the Cleanup of Gasoline Released from Underground Storage Tanks", which was part of the basis for the benzene and BTEX BAT limits, established the Daily Average limits equal to the Daily Maximum.

Comment No. 8

TNRCC claimed the proposed NPDES general permit covers only the cleanup of gasoline released from underground storage tanks, whereas, the TNRCC program addresses other petroleum releases and other petroleum substances. TMOGA requested that EPA expand this general permit to include other sources such as AST (above ground storage tank) petroleum releases at distribution terminals and bulk plants, while recognizing that inclusion of such additional sources would require additional rule making.

Response No. 8

The NPDES permit coverage is not limited to cleanup of gasoline released from underground storage tanks. The NPDES general permit covers facilities discharging waste waters resulting from the cleanup of Petroleum UST Systems. As defined in the permit and in 40 CFR 280, a Petroleum UST System is an underground storage tank system that contains petroleum or a mixture of

petroleum with de minimis quantities of other regulated substances. Such systems include those containing motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents and used oils. TMOGA is correct that expanding the permit coverage beyond that in the proposed permits would require additional rule making. Such additional rule making is not contemplated at this time.

Comment No. 9

TNRCC says the term "operator" should be clarified to state whether the operator is intended to be the party responsible for cleanup (usually the tank owner or tank operator) or the consultant who is handling cleanup for some other person. TNRCC says there are instances where the state is directing cleanup while attempting to recover costs from the responsible party.

Response No. 9

As stated in the proposed permit, the "operator" is the operator of a facility discharging waste waters resulting from the cleanup of Petroleum UST Systems. This complies with 40 CFR 122.21(b) which states "When a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit."

Comment No. 10

Where the permit specifically states an analytical method for measuring a parameter, TNRCC requests that the permit allow use of other methods as approved by the regional administrator. The specific concern is the method for Total Petroleum Hydrocarbons, which they expect to change in the near future.

Response No. 10

40 CFR 122.44(I)(1)(iv) requires permit monitoring requirements to be done using test procedures approved under 40 CFR 136 for analyzing pollutants having methods approved under that part, and according to test procedures specified in the permit for pollutants with no approved methods. If a test procedure, which is not approved under Part 136, is specified in a permit and a change is made in that test procedure, a permit modification is required to authorize use of the changed test procedure in the permit's monitoring requirements.

Comment No. 11

Texas Mid-Continent Oil & Gas Association (TMOGA) notes that the monitoring frequencies for the proposed Texas NPDES permit are the same as for the TNRCC regulation (TNRCC general permit). They request, however, changing the monitoring frequency in the EPA permit to 1/month after 6 months compliance for all parameters. The proposed EPA permit, after 6 months compliance, requires 1/3 months for PAH's and 2/month for all other parameters.

Response No. 11

TMOGA's request would, after the 6 month compliance period, increase the monitoring frequency for PAH's from that in the proposed permit but decrease the frequency for all other parameters. This request would also result in different monitoring frequencies from what TNRCC requires; whereas, the frequencies, as TMOGA notes, are proposed to be the same. EPA declines to change the monitoring frequencies in the Texas permit from what has been proposed.

Comment No. 12

Instead of allowing benzene analytical results less than 10 ug/l to be reported as 0 on Discharge Monitoring Report (DMR) submissions, TMOGA requested the permit allow sampling events that exceed 50 ug/l to be exempted as long as there are no two consecutive events greater than the minimum level of 5 ug/l. The basis for this request is their assumption that the permit's allowance for results less than 10 ug/l to be reported as 0 was included to allow the use of dual canister stripper systems.

Response No. 12

The permit allowance to report benzene analytical test results less than 10 ug/l as zero on the DMR's was not based on the use of dual canister stripper systems nor any other specific treatment. The 10 ug/l value is the minimum analytical level (also known as the minimum quantification level) for benzene. The permit allowance of reporting results less than 10 ug/l benzene as zero on DMR's complies with the water quality implementation plans of the Region 6 States. The request is denied.

Comment No. 13

The Oklahoma Department of Environmental Quality (ODEQ) recommended increasing the benzene limit to 12 ug/l, which is the limit in the current State General permit. They state that data

submitted in 1994 by 20 operators of Oklahoma UST sites showed an influent benzene concentration of 8.35 mg/l and a treatment efficiency of 93.4%.

Response No. 13

The limit in the ODEQ permit corresponds to the state water quality standard for benzene for human health protection (fish flesh and water). As discussed in the Fact Sheet for the proposed permits and elsewhere in this Response to Comments, the benzene limit of 5 ug/l has been established as BAT and is shown to be attainable. The Agency declines to increase the benzene limit to 12 ug/l.

Comment No. 14

ODEQ requested changing the monitoring frequency for Oklahoma dischargers from once per two weeks to once per week, except for PAH's. If compliance with the limit is demonstrated for six months, the minimum frequency will be reduced to two per month upon the permittee's submission of a certification of such compliance. They requested no change in the PAH and flow monitoring from that in the proposed permit.

Response No. 14

The requested monitoring change to OKG830000 will be made.

Comment No. 15

As a condition of tribal certification, the Pueblo of Pojoaque requires the following changes to be made in the final permit. The permit shall list Pojoaque Pueblo along with the states for which the permit applies. Under Part I.A.4 of the permit, Pojoaque Pueblo shall be distinguished from the State of New Mexico. The numeric and narrative permit limits listed for the State of New Mexico apply to the Pueblo of Pojoaque with the exception of the narrative standard related to implementation of the Colorado River Salinity Standards. The Pueblo of Pojoaque address to which copies of all applicable discharge monitoring reports and all other reports and correspondence are to be submitted should be added to Part II.D.4 of the permit.

Response No. 15

The requested changes will be made in the final permit.

Comment No. 16

The Pueblo of Santa Clara commented that, unlike New Mexico's water quality standards, those for the Santa Clara Pueblo include human health criteria. The Pueblo requires, as a condition of certification, that the permit limits are sufficiently stringent to ensure Santa Clara standards are met. Total phenols was pointed out as possibly needing a water quality based limit to ensure the Santa Clara human health total phenols standard of 4.6 ug/l is met.

As an additional condition of certification, Santa Clara requires the addition of the statement "there shall be no discharge of floating solids or visible foam in other than trace amounts. There shall be no visible oil sheen to be determined on a grab sample of the effluent collected twice per week in a wide mount glass container of at least 500 ml capacity. The observations must be reported and recorded."

A third condition of certification is to include a biomonitoring requirement such as New Mexico has requested.

Santa Clara requests deletion of the COD limit of 125 mg/l and deletion of the statement regarding the Colorado River Salinity Control Forum policy. The Pueblo requests modification of Part II.A.9 to include tribal laws as well as state laws and modification of Part II.D.4 to require submission of the appropriate DMR's to the Santa Clara Pueblo.

Response No. 16

As discussed in the Fact Sheet for the proposed permit, benzene and BTEX were selected as the indicator parameters for the hydrocarbons found in gasoline contaminated ground water and for the more volatile components of the other petroleum products involved in UST cleanups. The PAH's were selected as the indicator parameters representing the nonvolatile components of Petroleum UST Systems other than those containing gasoline, jet fuel or kerosene. Santa Clara has human health water quality standards for 8 of the 16 PAH's limited in the permit and for toluene, but not for benzene, ethyl benzene or xylenes. The standard for each of the 8 PAH's is 0.049 ug/l and for toluene is 200 mg/l. As discussed in the Fact Sheet for the proposed permit, the BAT-based limits for PAH's of 10 ug/l daily maximum and daily average will assure the Texas fish consumption water quality standards for each of the PAH's (0.0265 ug/l) will be met because the standards are long term averages and the discharges are of a relatively short term nature. The same conclusion applies to the Santa Clara human health standards for each of the

8 PAH's (0.049 ug/l). The BAT limit for BTEX is sufficiently stringent to allow the Santa Clara toluene standard to be met. Since there is no BAT limit for total phenol, a phenol limit of 4.6 ug/l will be placed on the discharges to assure compliance with this standard in all cases.

The other requested changes will also be made in the final permit.

Comment No. 17

The American Petroleum Institute (API) submitted comments addressing the achievability of the limits, the costs versus benefits of achieving the proposed limits and "the consistency of the proposed limits with the current requirements of the four states that comprise Region 6." API claimed the proposed limits for benzene and BTEX cannot be achieved consistently with air stripping technology, and that companies will have to invest in additional equipment in order to ensure compliance with the proposed limits. Part of API's basis for their claim that the limits cannot be achieved is the LDEQ average concentrations of influent and effluent data noted in the Fact Sheet, Section VI.E. API also claims the EPA "Model Permit", which was part of the basis for the proposed BAT limits, assumed influent concentrations of benzene and BTEX which were too low and per cent removals that were too high. API said they reviewed TNRCC DMR files (which contained effluent, but not influent data) which indicated the majority of sites could meet the proposed limits, but about five to ten per cent of the sites would occasionally exceed the proposed limits for benzene and BTEX. They say the Texas data showed the effluent always returned to levels below the proposed permit limits after one or two high-concentration events. API claims these data show the proposed limits will result in noncompliances even if UST sites use the treatment technology referenced in the Fact sheet. API also referenced a 1990 API report which, they say, shows the proposed permit limits could be met most of the time with air stripping but some sites could not achieve the limits 100 per cent of the time.

API says some operators might have to install activated carbon treatment on the effluent from the air stripper to ensure compliance with the permit limits 100 per cent of the time. They say the extra cost would not be justified by the benefits of activated carbon treatment.

Response No. 17

The issue of whether the LDEQ DMR data shows the proposed benzene

and BTEX limits are achievable was addressed in the Response to Comment No. 1, above. The API observed that the Texas data showed most sites able to comply with the proposed permit limits and where sites would occasionally exceed those levels, the effluent always returned to levels below the permit limits after one or two high concentration events. This observation is consistent with the large body of Louisiana data referenced in Response No. 1, above. As discussed in Response No. 1, these temporary exceedences of the levels in the proposed permits were generally caused by treatment system malfunctions. BAT limits must be based on levels indicative of properly operating treatment equipment. These LDEQ data do not show that the proposed limits cannot be achieved consistently with properly functioning air stripping technology. The Fact Sheet discusses that the use of air stripping and granular activated carbon in combination might be appropriate in some cases and is also considered to be a part of BAT. As stated in the Fact Sheet, the use of air stripping and/or granular carbon adsorption is the method currently being use at all or nearly all Petroleum UST System cleanups where there is a surface discharge. Because of this common usage, the cost estimates given in the Fact Sheet are considered to be economically achievable.

Comment No. 18

API states that a fundamental flaw with the proposed general permits is that the benzene and BTEX limits differ from the corresponding limits in the state general permits. They say the principal objective of the NPDES general permit is to facilitate NPDES permitting of UST cleanup sites that are currently permitted by the states under their general permit provisions. They say there is no reason, from either a technology or water quality standard protection standpoint, that the NPDES general permit should have different limits from those in the existing state general permits.

API recommended using the daily maximum limits for benzene and BTEX used by each of the individual states (Texas, Louisiana and Oklahoma) that have existing state-issued general permits for UST corrective action discharges. They recommend using monthly average limits that are one half those daily maximum limits. API states that using such recommended limits will be protective of water quality standards.

Amoco Corporation supported the API comments and highlighted the API request that EPA adopt the daily maximum limits for benzene and BTEX used by each of the individual states with existing state-issued permits.

Response No. 18

Section 301 of the Clean Water Act requires establishment of minimum technology requirements (BAT and BCT) for classes or categories of point sources. As discussed in the Fact Sheet for the proposed permits, such requirements have been established for two classes or categories of discharges. These two classes or categories are (1) Petroleum UST Systems containing only gasoline, jet fuel and/or kerosene and (2) other Petroleum UST Systems. The Region has no basis for establishing different BAT requirements for benzene and BTEX on a State by State basis for discharges in the same class or category. The maximum benzene limits in the current State permits are 50 ug/l for Texas, 50 ug/l for Louisiana and 28 ug/l for Oklahoma. The maximum BTEX limits in the State permits are 500 ug/l for Texas, 250 ug/l for Louisiana and no limit for BTEX (but a toluene maximum limit of 300 ug/l).

In addition to establishing minimum technology requirements for a class or category of discharges, EPA is required under 40 CFR 122.44(d) to include any requirements necessary to achieve State water quality standards. The Fact Sheet for the proposed permits established that compliance with the proposed BAT limits for benzene will assure compliance with the benzene water quality standards of the four states covered by these permits.

40 CFR 122.44(d) also requires EPA to include in a permit any more stringent limits established under State law or regulations. As discussed in the Fact Sheet for the proposed permits, this requirement has resulted in several additional parameters being limited in the permits; although, more restrictive limits were not required for benzene or BTEX.